In the Claims:

Please cancel claims 1-24 and 35-63, and please add new claims 64-73 as follows:

1-24. (Canceled)

25. (Original) A retainer for holding a tray stack having a plurality of trays that are configured to carry microelectronic devices, comprising:

a housing having a frame and a plurality of panels attached to the frame, the frame including a first guide having an interior structure configured to moveably retain a first side of the tray stack, a second guide having an inner structure configured to moveably retain a second side of the tray stack, a bearing plate attached to an upper section of the first and second guides to fix together the first and second guides, the panels being attached to the frame to define a cavity configured to receive the tray stack, and the panels defining an opening to the cavity opposite of the bearing plate through which the tray stack can pass into or out of the housing;

a quick release lock assembly coupled to the housing, the lock assembly having an actuator, a plurality of shafts coupled to the actuator and positioned in the housing to move between a first position and second position, and a retaining element attached to an end of each shaft at least proximate to the opening of the housing, the retaining elements moving with the shafts between a storage position when the shafts are in the first position and a load/unload position when the shafts are in the second position, wherein the retaining elements at least partially obstruct the opening in the storage position to hold trays of the tray stack in the housing, and the retaining elements do not obstruct the opening in the load/unload position to allow individual trays to pass through the opening; and

a floating plate slidably attached to the shafts, the floating plate driving the trays towards the opening when the retaining elements are in the load/unload position.

26. (Original) The retainer of claim 25 wherein the quick release lock assembly further comprises a plurality of lock bearings attached to the floating plate, the lock bearings each having a hole, and wherein the shafts extend in the direction of the load/unload path and each shaft is slidably and rotatably received in a hole of a corresponding lock bearing, wherein at least one of the lock bearings and the shafts rotate between a lock position and a release position.

27. (Original) The retainer of claim 26 wherein the lock bearing each further comprise an engagement assembly having an engagement element, a contact surface and a release surface, the engagement element being coupled to one of the shafts or the lock bearings, and the contact surface and the release surface being on the other of the shafts or the lock bearings.

28. (Original) The retainer of claim 27 wherein the contact surface is configured to contact the engagement element and prevent axial movement between the lock bearing and the shaft in the lock position, and the release surface is configured to be spaced apart from the engagement element and allow axial movement between the lock bearing and the shaft in the release position.

29. (Original) The retainer of claim 28 wherein:

the shafts each comprise a contoured elongated member having a flat section defining the release surface and a rounded outer section defining the contact surface, the rounded outer section having a curved outer surface with a diameter to fit within the hole of a corresponding lock bearing; and

the lock bearings each comprise a hub having a cylindrical hole, an interior groove within the hole, and a resilient member defining the engagement

member in the groove, the flat section of a shaft being juxtaposed to the resilient member of a corresponding lock bearing in the release position and the outer section of the shaft contacting the resilient member of the corresponding lock bearing in the lock position.

30. (Original) The retainer of claim 28 wherein:

the shafts each comprise an elongated member having a flat section defining the release surface and a plurality of truncated annular teeth defining the contact surface; and

the lock bearings each comprise a hub having a hole, a flat portion, and a slot in the flat portion defining the engagement element, the flat section of a shaft being juxtaposed to the flat portion of a corresponding lock bearing in the release position and at least one of the annular teeth being in the slot in the lock position.

31. (Original) A retainer for holding a tray stack having a plurality of trays that are configured to carry microelectronic devices, comprising:

a casing having a guide structure with a first end and a second end, an interior holding area, and an opening at least proximate to the second end, the guide structure being configured to support the tray stack with respect to a load/unload path and to allow the tray stack to move through the guide structure along the load/unload path;

a plurality of moveable retaining elements at least proximate to the second end, the retaining elements being moveable between a storage position in which the retaining elements project into the interior holding area of the guide structure and a load/unload position in which the retaining elements either do not project as far into the interior holding area or are completely removed from the interior holding area; and

a floating plate moveably positioned in the casing to move along the load/unload path defined by the guide structure, the floating plate pushing the trays

against the retaining elements when the retaining elements are in the storage position and the floating plate pushing the trays out of the casing when the retaining elements are in the load/unload position.

32. (Original) The retainer of claim 31 wherein:

the guide structure has a first channel section comprising a first C-shaped channel member and a second channel section comprising second C-shaped channel member; and

the floating plate has a first end adjacent to the first C-shaped channel member and a second end adjacent to the second C-shaped channel member.

33. (Original) The retainer of claim 31 wherein:

the guide structure has a first channel section comprising first and second L-shaped channel members and a second channel section comprising third and fourth L-shaped channel members; and

the floating plate has a first end adjacent to the first and second L-shaped channel members and a second end adjacent to the third and fourth L-shaped channel members.

34. (Original) The retainer of claim 31, further comprising a lock/release assembly including:

a lock bearing attached to the floating plate, the lock bearing having a hole;

a shaft extending in the direction of the load/unload path, the shaft being slidably and rotatably received in the hole of the lock bearing, wherein at least one of the lock bearing and the shaft rotates between a lock position and a release position; and

an engagement assembly having an engagement element, a contact surface and a release surface, the engagement element being coupled to one of the shaft or the lock bearing, and the contact surface and the release surface being on the other of the shaft or the lock bearing, the contact surface

being configured to contact the engagement element and prevent axial movement between the lock bearing and the shaft in the lock position, and the release surface being configured to be spaced apart from the engagement element and allow axial movement between the lock bearing and the shaft in the release position.

35-63. (Canceled)

64. (New) A retainer for holding a tray stack having a plurality of trays that are configured to carry microelectronic devices, the retainer comprising:

a housing having a first guide, a second guide, and an opening, the first and second guides being configured to movably retain the tray stack;

a floating plate extending at least partially between the first and second guides, the floating plate being slidable along a load/unload path relative to the housing; and

a plurality of movable retaining elements at least proximate to the opening, the retaining elements being moveable between a storage position and a load/unload position, wherein when the housing receives the tray stack and the retaining elements are in the storage position the floating plate and the retaining elements inhibit movement of the tray stack along the load/unload path, and wherein when the retaining elements are in the load/unload position the retaining elements do not obstruct movement of the tray stack along the load/unload path through the opening.

65. (New) The retainer of claim 64, further comprising a quick release lock assembly coupled to the housing, the lock assembly including an actuator, a plurality of shafts coupled to the actuator, and the retaining elements attached to corresponding shafts, wherein the shafts are positioned in the housing to move between a first position and a second position.

66. (New) The retainer of claim 65 wherein the quick release lock assembly further comprises a plurality of lock bearings attached to the floating plate, the individual lock bearings having a hole, wherein the shafts extend in the direction of the load/unload path and each shaft is slidably and rotatably received in a hole of a corresponding lock bearing, and wherein at least one of the lock bearings and the shafts rotate between a lock position and a release position.

67. (New) The retainer of claim 66 wherein the individual lock bearings further comprise an engagement assembly having an engagement element, a contact surface, and a release surface, the engagement element being coupled to one of the shafts or the lock bearings, and the contact surface and the release surface being on the other of the shafts or the lock bearings.

68. (New) The retainer of claim 67 wherein the contact surface is configured to contact the engagement element and prevent axial movement between the lock bearing and the shaft in the lock position, and the release surface is configured to be spaced apart from the engagement element and allow axial movement between the lock bearing and the shaft in the release position.

69. (New) The retainer of claim 68 wherein:

the individual shafts comprise a contoured elongated member having a flat section defining the release surface and a rounded outer section defining the contact surface, the rounded outer section having a curved outer surface with a diameter to fit within the hole of a corresponding lock bearing; and

the individual lock bearings comprise a hub having a cylindrical hole, an interior groove within the hole, and a resilient member defining the engagement member in the groove, the flat section of a shaft being juxtaposed to the resilient member of a corresponding lock bearing in the release position

and the outer section of the shaft contacting the resilient member of the corresponding lock bearing in the lock position.

70. (New) The retainer of claim 68 wherein:

the individual shafts comprise an elongated member having a flat section defining the release surface and a plurality of truncated annular teeth defining the contact surface; and

the individual lock bearings comprise a hub having a hole, a flat portion, and a slot in the flat portion defining the engagement element, the flat section of a shaft being juxtaposed to the flat portion of a corresponding lock bearing in the release position and at least one of the annular teeth being in the slot in the lock position.

71. (New) The retainer of claim 64 wherein:

the first guide includes a first C-shaped channel member and the second guide includes a second C-shaped channel member; and

the floating plate has a first end adjacent to the first C-shaped channel member and a second end adjacent to the second C-shaped channel member.

72. (New) The retainer of claim 64 wherein:

the first guide includes a first L-shaped channel member and the second guide includes a second L-shaped channel member; and

the floating plate has a first end adjacent to the first L-shaped channel member and a second end adjacent to the second L-shaped channel member.

73. (New) The retainer of claim 64, further comprising a lock/release assembly including:

a lock bearing attached to the floating plate, the lock bearing having a hole;

a shaft extending in the direction of the load/unload path, the shaft being slidably and rotatably received in the hole of the lock bearing, wherein at least

one of the lock bearing and the shaft rotates between a lock position and a release position; and

an engagement assembly having an engagement element, a contact surface and a release surface, the engagement element being coupled to one of the shaft or the lock bearing, and the contact surface and the release surface being on the other of the shaft or the lock bearing, the contact surface being configured to contact the engagement element and prevent axial movement between the lock bearing and the shaft in the lock position, and the release surface being configured to be spaced apart from the engagement element and allow axial movement between the lock bearing and the shaft in the release position.